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EXAMINER

HASSAN, AURANGZEB

ART UNIT	PAPER NUMBER
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2182

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)
	10/810,149	MICHAUD, TED R.
	Examiner	Art Unit
	Aurangzeb Hassan	2182

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 09 March 2007.
 2a) This action is **FINAL**. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-6,8-10 and 12-31 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1-6,8-10 and 12-31 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1, 8, 12, 16, 21 and 25 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The specification does not provide enablement as to how a USB device can be supported by a home gateway device without a device driver. The specification at best repeats the claim limitation without providing support as to how this function can work. There is no evidence in the art that a device can be installed without a driver and fully function. Therefore one of ordinary skill in the art would not be able to carryout installing a device without a driver, as recited in the instant application, without undue experimentation.

To expedite complete examination of the instant application, the Examiner will best interpret the claim limitations to express the alternative obvious variant as recited in specification (page 6, line 22 to page 7 line 1) as the driver functionality message comprises the USB driver itself.

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3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1, 8, 12, 16, 21 and 25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is unclear to the Examiner what the metes and bounds of the term "support(s)" constitute. Support for a home gateway device can represent the capability to be plugged into, for example a home gateway device with a USB port can "support" a USB device without a driver. "Support" can also be interpreted by a home gateway device providing full functionality and communication for the components incorporated therein, however in light of the 35 U.S.C. 112, first paragraph rejection above, it would be unclear how a home gateway device can "support" a USB device without a device driver.

Clarification/correction required.

Claim Rejections - 35 USC § 103

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. **Claims 1 – 6, 8 – 10, 12 – 15 and 21 - 31 are rejected under 35 U.S.C. 102(b) as anticipated by Katz et al. (US Publication Number 2002/0065950 hereinafter “Katz”) or, in the alternative, under 35 U.S.C. 103(a) as obvious over Katz in view of Quraishi et al. (US Publication Number 2004/0254013, hereinafter “Quraishi”).**

8. As per claims 1 and 25 Katz teaches a method and computer readable storage medium of providing USB device support in an interactive system, said method comprising the steps of: determining USB device information of a USB device connected to a USB port associated with a home gateway (performing Step 628 of figure 6d for the USB device 502, figure 5); communicating the USB device information to a USB server; (step 630 of figure 6d conducted with Server 106, figure 1); and receiving a driver functionality message at the home gateway comprising instructions or information associated with the USB device (step 632, figure 6d).

As for the limitation of: whereby the home gateway supports the USB device and contains a USB driver capable of supporting the USB device. As best interpreted in light

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of the 35 U.S.C. 112, first paragraph rejection above, the home gateway device comprises the driver seen in **Katz: step 632, figure 6d, and intermediary signal sent for driver transmission and installation, paragraph [0091]**. Furthermore in light of the 35 U.S.C. 112 second paragraph rejection, “support” can be provided without a driver in the fact that the USB device can be plugged into the home gateway as seen in **Katz: figure 5** or in an alternative “support” is provided with a driver installed and communication is established in **figure 6e**.

In the alternative, Quraishi teaches a method whereby the home gateway supports the USB device using firmware in place of a driver, therefore without containing a USB driver capable of supporting the USB device (downloading firmware from a server, paragraph [0025]).

It would have been obvious to one of ordinary skill in the art at the time of the applicant’s invention to modify Katz with the above teachings of Quraishi. One of ordinary skill would be motivated to make such modification in order to minimize the high costs associated with deploying device drivers (paragraph [0017]).

The Examiner notes that the claim limitations necessitate receiving functionality that comprises instructions or information associated with the USB device and further notes that firmware comprises instructions or information associated with a device and provides support to a device therefor, reading on the claim limitations.

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9. As per claim 2, Katz teaches a method wherein determining USB device information comprises analyzing the USB device via a USB connection (connection from 502 to 202 in figure 5 is via USB paragraph [0004], Peripheral Interface Agent, PIA 712; figure 7, paragraphs [0090&0091]).

10. As per claims 3 and 28, Katz teaches a method and computer readable storage medium wherein communicating the USB device information to a USB server comprises communicating the USB device information to the USB server via an interactive path across a network (figure 1 shows the network interactive path from the client 110 on which the USB device is connected to the USB server 106).

11. As per claims 4, 29 and 30 Katz teaches a method and computer readable storage medium wherein communicating the USB device information to a USB server comprises communicating the USB device information to the USB server via an interactive path across a wireless network (paragraph [0025&0032]).

12. As per claim 5, Katz teaches a method wherein communicating the USB device information to a USB server comprises communicating the USB device information to the USB server via an interactive path across a cable network (paragraph [0032&0065]).

13. As per claims 6 and 31, Katz teaches a method and computer readable storage

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medium wherein receiving a driver functionality message comprises receiving the driver functionality message via an intermediate message protocol (the intermediary signal is used to communicate for driver allocation from the server, paragraph [0085]).

14. As per claim 8, Katz teaches a method of providing USB device support to a home gateway device (STB 202 in figure 2) in an interactive system (STB 202 is in MSTV Client 110, figure 1), said method comprising the steps of: receiving USB device information of a USB device connected to a USB port associated with a home gateway (performing Step 628 of figure 6d for the USB device 502, figure 5); determining the appropriate USB driver for the USB device (step 630 of figure 6d conducted with Server 106, figure 1); and communicating a driver functionality message comprising instructions or information associated with the USB device (step 632, figure 6d).

As for the limitation of: thereby enabling the home gateway to support the USB device and contains a USB driver capable of supporting the USB device (As best interpreted in light of the 35 U.S.C. 112, first paragraph rejection above, the home gateway device comprises the driver seen in **Katz: step 632, figure 6d, and intermediary signal sent for driver transmission and installation, paragraph [0091]**. Furthermore in light of the 35 U.S.C. 112 second paragraph rejection, “support” can be provided without a driver in the fact that the USB device can be plugged into the home gateway as seen in **Katz: figure 5** or in an alternative “support” is provided with a driver installed and communication is established in **figure 6e**).

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In the alternative, Quraishi teaches a method thereby enabling the home gateway to support the USB device without containing a USB drive capable of supporting the USB device (downloading firmware from a server, paragraph [0025]).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify Katz with the above teachings of Quraishi. One of ordinary skill would be motivated to make such modification in order to minimize the high costs associated with deploying device drivers (paragraph [0017]).

15. As per claim 9, Katz teaches a method wherein determining the USB driver for the USB device comprises determining a type of USB device by analyzing the USB device information (Peripheral Interface Agent, PIA 712, figure 7, paragraphs [0090&0091]).

16. As per claim 10, Katz teaches a method wherein communicating a driver functionality message comprises communicating a message comprising instructions for the home gateway device based on the USB driver for the type of USB device (step 632 figure 6d, where the intermediary signal is used to communicate for driver allocation from the server, paragraph [0085]).

17. As per claim 12, Katz teaches an apparatus for providing USB class support in an interactive system, said apparatus comprising: a USB port for connecting to a USB device (peripherals connected via USB connected via USB ports, paragraph [0004]);

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and a network connection to a USB server (figure 1, paragraphs [0025, 0032, 0065]);

wherein the apparatus determines USB device information (step 630 of figure 6d

conducted with Server 106, figure 1), communicates the USB device information to the

USB server, and receives a driver functionality message comprising instructions or

information associated with the USB device (step 632, figure 6d).

As for the limitation of: whereby the home gateway supports the USB device and contains a USB driver capable of supporting the USB device (As best interpreted in light of the 35 U.S.C. 112, first paragraph rejection above, the home gateway device comprises the driver seen in **Katz: step 632, figure 6d, and intermediary signal sent for driver transmission and installation, paragraph [0091]**. Furthermore in light of the 35 U.S.C. 112 second paragraph rejection, “support” can be provided without a driver in the fact that the USB device can be plugged into the home gateway as seen in **Katz: figure 5** or in an alternative “support” is provided with a driver installed and communication is established in **figure 6e**).

In the alternative, Quraishi teaches a method whereby the home gateway supports the USB device without containing a USB drive capable of supporting the USB device (downloading firmware from a server, paragraph [0025]).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify Katz with the above teachings of Quraishi. One of ordinary skill would be motivated to make such modification in order to minimize the high costs associated with deploying device drivers (paragraph [0017]).

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18. As per claim 13, Katz teaches an apparatus wherein said USB port is coupled to a USB hub (USB hub functionality allows for more than one USB device to be connected, figure 5, paragraph [0080] allows for more than one USB peripheral to be connected).

19. As per claim 14, Katz teaches an apparatus wherein said network connection to a USB server comprises a network connection via a wireless network to a USB server (paragraphs [0025&0032]).

20. As per claim 15, Katz teaches an apparatus wherein said network connection to a USB server comprises a network connection via a cable network to a USB server (paragraphs [0032&0065]).

21. As per claim 21, Katz teaches a system for providing USB class support in an interactive system, said apparatus comprising: a home gateway device, said home gateway device comprising a USB port coupled to a USB device (peripherals connected via USB connected via USB ports, paragraph [0004]) and a network connection to a network (figure 1, paragraphs [0025, 0032, 0065]); a USB server, said USB server comprising a USB memory device for storing USB driver information associated with a USB driver and a network connection to a network (MSTV Server has proper storage of drivers and is networked to the MSTV client, figure 1); wherein said system communicates USB device information from the home gateway device to the USB

server, and communicates a driver functionality message from the USB server to the home gateway device (figure 6d).

22. As per claim 22, Katz teaches a system wherein said home gateway device network connection and said USB server network connection create an interactive path between the USB server and the home gateway device (paragraphs [0002,0003], figure 1).

23. As per claim 23, Katz teaches a system wherein said interactive path provides for driver functionality messages to be communicated from the USB server to the home gateway device via an intermediate messaging protocol (the intermediary signal is used to communicate for driver allocation from the server, paragraph [0085]).

24. As per claim 24, Katz teaches a system wherein said interactive path is supported by a cable network (paragraphs [0032&0065]).

25. As per claim 26, Katz teaches a computer readable medium wherein accepting a USB device via a connection to a USB port comprises receiving the USB device through a connection to a USB port on a USB hub (USB hub functionality allows for more than one USB device to be connected, figure 5, paragraph [0080] allows for more than one USB peripheral to be connected).

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26. As per claim 27, Katz teaches a computer readable medium wherein determining USB device information comprises analyzing the USB device via the USB connection to determine the type of USB device (connection from 502 to 202 in figure 5 is via USB paragraph [0004], Peripheral Interface Agent, PIA 712, figure 7, paragraphs [0090&0091]).

27. Claims 16 – 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Katz in view of Perlman et al. (US Patent Number 6,269,481 hereinafter “Perlman”) or, in the alternative, under 35 U.S.C. 103(a) as obvious over Katz in view of Perlman further in view of Quraishi.

28. As per claims 16 and 17 Katz teaches an apparatus for providing USB driver functionality to a USB device coupled to a home gateway device in an interactive system (figure 5), said apparatus comprising: a USB memory device (paragraph [0078]), an interactive path connection to a home gateway device (path between 202 and 502, figure 5); wherein said apparatus receives USB device information (performing Step 628 of figure 6d for the USB device 502, figure 5); determines the appropriate USB driver for the USB device(step 630 of figure 6d conducted with Server 106, figure 1); and communicates a driver functionality message comprising instructions or information associated with the USB device (step 632, figure 6d).

Katz discloses a peripheral to consist of USB memory devices (paragraph [0078]) yet fails to explicitly disclose storing the driver in the USB memory peripheral device.

Perlman teaches utilizing a memory device and storing the appropriate driver therein (column 1, lines 47 – 52).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify Katz with the above teachings of Perlman. One of ordinary skill in the art would be motivated to make such modification in order to increase efficiency and ease of use for the user (column 1, lines 34 – 38).

As for the limitation of: thereby enabling the home gateway to support the USB device and contains a USB driver capable of supporting the USB device (As best interpreted in light of the 35 U.S.C. 112, first paragraph rejection above, the home gateway device comprises the driver seen in **Katz: step 632, figure 6d, and intermediary signal sent for driver transmission and installation, paragraph [0091]**. Furthermore in light of the 35 U.S.C. 112 second paragraph rejection, "support" can be provided without a driver in the fact that the USB device can be plugged into the home gateway as seen in **Katz: figure 5** or in an alternative "support" is provided with a driver installed and communication is established in **figure 6e**).

In the alternative, Quraishi teaches a method thereby enabling the home gateway to support the USB device without containing a USB drive capable of supporting the USB device (downloading firmware from a server, paragraph [0025]).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the combination of Katz and Perlman with the above teachings of Quraishi. One of ordinary skill would be motivated to make such modification in order to minimize the high costs associated with deploying device drivers (paragraph [0017]).

29. As per claim 18, Katz teaches a method, apparatus and computer readable storage medium wherein communicating the USB device information to a USB server comprises communicating the USB device information to the USB server via an interactive path across a network (figure 1 shows the network interactive path from the client 110 on which the USB device is connected to the USB server 106).

30. As per claim 19 Katz teaches a method, apparatus and computer readable storage medium wherein communicating the USB device information to a USB server comprises communicating the USB device information to the USB server via an interactive path across a wireless network (paragraph [0025&0032]).

31. As per claim 20, Katz teaches a method and apparatus wherein communicating the USB device information to a USB server comprises communicating the USB device information to the USB server via an interactive path across a cable network (paragraph [0032&0065]).

Response to Arguments

32. Applicant's arguments with respect to claims 1 – 6, 8 – 10, 12 – 15 and 21 – 30 have been considered but are moot in view of the new ground(s) of rejection.

All of the Applicant's arguments are in reference to newly added claim limitations, which are addressed in the rejection above. Applicant is further directed to note the 35 U.S.C. 112 first and second paragraph rejections as they pertain to claim limitations of supporting a device without a driver.

Conclusion

33. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aurangzeb Hassan whose telephone number is (571) 272-8625. The examiner can normally be reached on Monday - Friday 9 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Huynh can be reached on (571) 272-4147. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AH



KIM HUYNH
SUPERVISORY PATENT EXAMINER

5/23/07